DR{i}NK	**Welcome David Holloway**	**Manage Alerts & Requests**	**View Alerts**	**New Request**

Modify   Save   Alert   Sort: %↓   Rank   Newest   Oldest   Source   Subject   Draw: Graph   BarChart   Print...   Simi Doc

Results (by Rank) for: A system for targeted marketing that allows mailers of utility bills, mortgage bills, or telephone services to include advertising for financial instruments or products in their mailings of the bills. The system uses information such as customer, age, demographics, financial information, family status and other information kept in the utility or mortgage companies databases to target specific individuals for advertisements which are then included or actually printed on the bills. Also check for mailings included with or enclosed with credit card bills that advertise financial services or products.

50 documents returned

GOING DIRECT IN ARGENTINA ☐

Market Latin America • 02/01/95 • 3 pages (670 words) • SUMMARY
Increasing economic stability, a growing variety of consumer goods, a more sophisticated consumer base, and improvements in communications are creating a favorable consumer response to direct marketing in Argentina.

Rapport om informative elregninger. (Report on informative electricity bills) ☐

Danske Elvaerkers Forening, Copenhagen • *NTIS* • 02/01/94 • 2 pages (300 words) • SUMMARY
With regard to Denmark's energy and environmental policies, Danish electric power distribution companies, in connection with measures for saving energy and thus reducing pollution, are currently establishing energy consultancy services, informative public campaigns, the training of consultants, energy surveys, the setting up of energy advisory centers etc.

WEB MARKETING: AT&T AND WELLS FARGO TEAM TO MAKE IT EASIER FOR BUSINESSES TO SELL ON THE WEB. (COMPANY BUSINESS AND MARKETING) ☐

EDGE, on & about AT&T • 03/17/97 • 4 pages (830 words) • SUMMARY
AT&T and Wells Fargo Bank Wednesday announced a strategic marketing alliance that will make it easier for merchants to establish and manage an electronic storefront on the Web.

Pricing considerations for electronic products in a network and requirements for a billing system-from a publisher's viewpoint □

Kohler, H.-D. • *Elektronisches Publizieren und Bibliotheken (Electronic Publishing and Libraries)* • 01/01/96 • 2 pages (290 words) • SUMMARY
Information is a very special merchandise: information is immaterial, It can't be consumed; information can-at almost no cost-be stored, fixed to a carrier material, or transmitted electronically, so it can easily be accessed and reproduced; the utility of information varies according to the kind of use and the time of communication; information is a product but it is also more and more acknowledged to be a factor of production; and free flow of information is a basic human right.

Enhancing product documentation with new information technology systems based on STEP □

Brandli, N. ; Kafer, W. ; Malle, B. • *27th ISATA. Proceedings for the Dedicated Conferences on Mechatronics and Supercomputing Applications in the Transportation Industries* • 01/01/94 • 2 pages (280 words) • SUMMARY
All important information about products is directly captured or closely related to the product structure which, in turn, is represented in the bill of material.

FT 01 JUL 94 / Technology: Smart selling to big spenders - Databases will soon be able to tell stores what individual customers like for breakfast, explains Victoria Griffith in a series on electronic retailing □

Victoria Griffith • *The Financial Times* • 07/01/94 • 5 pages (1400 words) • SUMMARY
Every salesperson would like to see into the minds of customers, to know exactly what they want and when they want it.

Generic bill-of-material. A new product model □

Hegge, H.M.H.;Wortmann, J.C.; • *International Journal of Production EconomicsProceedings of the 6th International Working Seminar on Production Economics* • 02/19/91 • 2 pages (250 words) • SUMMARY
The supply of industrial products to the market has increased fast in the last decade. In

Why are mighty banks afraid of little software companies? □

Mike Elgan • *Windows Magazine* • 12/05/95 • 5 pages (1200 words) • SUMMARY
This year, banks and software vendors will wage a bloody war over the future of banking. Even

Bank to the Future -- Does online banking make bill paying and account tracking fast and convenient? □

Jerry Lazar • *NetGuide* • 05/01/95 • 5 pages (1400 words) • SUMMARY
The mark of a revolutionary technology is our inability to picture what our lives were like before we knew it existed.

MCI SERVICES ON ONE BIG BILL. (COMPANY BUSINESS AND MARKETING) □

GREENE, TIM • *Network World* • 09/16/96 • 2 pages (150 words) • SUMMARY
MCI will begin using its Horizon billing platform at the beginning of 1997. The new arrangement

Easy Money -- Despite years of trying, online banks have been a bust. That's about to change. □

Chris Costanzo • *NetGuide* • 01/18/96 • 6 pages (1700 words) • SUMMARY
Last October, Eric Walter, a 27-year-old single guy from Atlanta, became the first
customer of Security First Network Bank, the only bank born and raised exclusively
on the Internet.

Interactive Beat--Electronic Bill Delivery Takes A Step Forward □

Bank Technology News • 11/01/96 • 6 pages (1600 words) • SUMMARY
Electronic bill presentment, the high-tech other half of electronic bill payment, where
bills are delivered to consumers electronically, took a step forward recently.

Lotus Joins Four Others to Offer Management Service to Internet □ Content Providers

COMLINE - Telecommunications • 03/18/97 • 2 pages (190 words) • SUMMARY
Lotus says it will join with Mitsubishi (8058), Mitsubishi Electric (6503), Kyodo
VAN and IBM Japan to create NNS, a joint venture that will offer support services for
Internet digital contents providers, including management of user IDs, security and
billing.

BROWSER INTERFACE SETS ATLANTA BANK APART. □ (ATLANTA INTERNET BANK ENGAGING IN ELECTRONIC COMMERCE) (COMPANY BUSINESS AND MARKETING)

GIRARD, KIM • *Computerworld* • 11/04/96 • 2 pages (200 words) • SUMMARY
Atlanta Internet Bank is one of the first true online banks that lets customers do
business using a standard Web browser instead of the proprietary tools required by
many traditional banks' online services.

Daihatsu Motor To Develop "Next-Generation Car Navi System" □ for Mini Cars Which Uses Pager Instead of Mobile Phone Link

COMLINE - Automobiles and Transportation • 10/19/94 • 3 pages (520 words) •
SUMMARY
Daihatsu Motor Co., Ltd. (7262) is to proceed with development of a "next-generation
car

Microsoft Money for Windows 95 -- 32-Bit Financial Wizard □

Joel T. Patz • *Windows Magazine* • 10/16/95 • 3 pages (760 words) • SUMMARY
Two bits is still just 25 cents, but 32 bits adds up to a lot more with Microsoft's new
Windows 95 version of Money.

Been Scammed? How to Avoid Becoming an Online Sucker □

Cynthia Kurkowski • *NetGuide* • 12/04/95 • 4 pages (810 words) • SUMMARY
Ever wonder how you could still mail a first-class letter using a 2-cent stamp? Or how
you could

Finance titles renew online banking efforts -- Acceptance Linked □ To Hardware Improvements

Bradley J. Fikes • *Computer Retail Week* • 11/14/95 • 4 pages (970 words) •
SUMMARY
SAN DIEGO, CALIF.-A computer maxim for the 90s: technology favors the prepared

Interactive Beat: Can't Get Enough Of Those ATMs □

Bank Technology News • 05/01/96 • 6 pages (1500 words) • SUMMARY
The use of ATM cards is hitting an all-time high, partly due to the growth in debit
payments. So

Tenaga Nasional Berhad application story-computerised customer information and billing system ☐

Dodson, J. • *Eighth International Conference on Metering and Tariffs for Energy Supply (Conf. Publ. No.426)* • 01/01/96 • 2 pages (210 words) • SUMMARY
There are an existing number of electric utilities in countries such as Malaysia, Oman, Seychelles, Indonesia and Turkey who have moved to power metering systems where not only are the meter readings captured by handheld computers, but bills are also electronically issued on the door step of the customer.

It's a whole new World -- Bundled Services And Price Discounts Are Heading Your Way ☐

Mary Johnston Turner • *Communications Week* • 08/30/96 • 6 pages (1700 words) • SUMMARY
As the percentage of network traffic devoted to electronic commerce (EC) increases, adding to the already noticeable load of Internet traffic, a number of structural changes will occur in public networks and their pricing.

The Online Banking Biz ...Has Its Time Come? -- Cyberspace is such a great place to bank that I'll overlook a few little problems ☐

Robert Seidman • *NetGuide* • 12/01/96 • 5 pages (1400 words) • SUMMARY
Transactions, transactions, transactions. Making a teeny-tiny, itsy-bitsy little bit of money on

National High-Performance Computing and Networking Act. Report to Accompany S. 343, Senate, 102d Congess, 1st Session ☐

Committee on Energy and Natural Resources (U.S. Senate) • *NTIS* • 05/23/91 • 2 pages (330 words) • SUMMARY
The purpose of the bill (S. 343), as reported by the Senate Committee on Energy and Natural

Billing to Please Customers ☐

John Fontana • *Communications Week* • 10/14/96 • 3 pages (550 words) • SUMMARY
Kenan Systems Corp. is offering a tailored billing system for Internet service providers that

CheckFree pays bills online -- Communications service utilizes the modem to replace the writing of paper checks. ☐

LINK-UP • 05/01/89 • 2 pages (220 words) • SUMMARY
Describes CheckFree, a personal banking service from CheckFree Corporation of Columbus, OH (614).

FROM BORING TO BRILLIANT: OVERHAULING TELCO BILLING STATEMENTS ☐

Telco Business Report • 06/05/95 • 5 pages (1200 words) • SUMMARY
With the constant barrage of industry information hitting the public from print, radio and television advertising, standing out from the crowd is a real challenge for telcos.

Billers Benefit When The Bill's Not In The Mail ☐

Bank Network News • 09/11/96 • 6 pages (1500 words) • SUMMARY
Editor's Note: This is the second article in a two-part series on electronic bill payment and presentment.

New end-user services based on an advanced tariff computer □ system.

Rahbek, Torben ; Dam, Torben • *IEE CONF PUBL.* • 01/01/93 • 2 pages (180 words)
• SUMMARY
A Danish electricity company, NESA, is carrying on a market survey of services to its consumers.

Screen Phones Keep Plugging For Consumer Appeal □

Bank Network News • 06/11/96 • 4 pages (1000 words) • SUMMARY
While the personal computer and the Internet are the current hot items in home banking, screen phone manufacturers insist their products will have a place in the mix as well.

HOME BANKING--Screen Phones Keep Plugging For Consumer □ Appeal

Bank Network News • 06/11/96 • 4 pages (1000 words) • SUMMARY
While the personal computer and the Internet are the current hot items in home banking, screen phone manufacturers insist their products will have a place in the mix as well.

AT&T: AT&T licenses Edify Electronic Banking System for □ Atlanta Internet Bank

M2 Presswire • 10/28/96 • 5 pages (1100 words) • SUMMARY
EDFY), a leading provider of self-service software, today announced that it has signed a product licensing agreement with AT&T.

CheckFree Adds More Web-Based Electronic Business Offerings □

Electronic Information Report • 03/07/97 • 3 pages (630 words) • SUMMARY
As part of a portfolio of services targeting financial institutions, CheckFree Corp. launched a

Telephone scams for the 1990s. □

Consumers' Research Magazine • 05/01/90 • 10 pages (3200 words) • SUMMARY
An estimated $10 billion is lost yearly by consumers to people who operate scams over the telephone, according to the North American Securities Administrators Association.

EDIFY: AT&T licenses Edify Electronic Banking System for □ Atlanta Internet Bank

M2 Presswire • 10/16/96 • 5 pages (1100 words) • SUMMARY
Edify Corporation (NASDAQ: EDFY), a leading provider of self service software, today announced that it has signed a product licensing agreement with AT&T.

US Senate Approval of RBOCs Entering Equipment Business □ Worries Japanese Communications Industry

COMLINE - Telecommunications • 06/08/90 • 2 pages (150 words) • SUMMARY
The Japanese telecommunications industry is reportedly concerned about the approval of a bill by the US Senate's Commerce Committee that would enable the 7 RBOCs (Regional Bell operating companies) to manufacture and market telecommunication equipment.

A look at the options and who's using them -- Internet payment schemes

Karen Rodriguez • *Communications Week* • 12/05/95 • 6 pages (1300 words) • SUMMARY

The creators of Internet payment schemes are hashing out their transaction implementations and pushing hard to garner the greatest number of supporters to make their solutions standard.

Shareware lends expertise--and won't break the bank

Mary Campbell • *HomePC* • 01/10/96 • 6 pages (1700 words) • SUMMARY

Whether you're saving for retirement, investing for your children's college education, or paying off a home, car or credit-card bill, there's a wealth of software that can help you reach your financial goals.

Stop junk mail forever.

Eisenson, Marc • *Mother Earth News* • 08/01/94 • 14 pages (4300 words) • SUMMARY

Direct-mail marketers take in billions each year by sending you pitches and promos you didn't ask for.

CUSTOM BILLING CONVERGES ON INDUSTRY; INCREASED COMPETITION FOR TELCOS MEANS NEW SERVICES FOR CUSTOMERS. (INDUSTRY TREND OR EVENT)

WALTNER, CHARLES • *InfoWorld* • 11/18/96 • 2 pages (200 words) • SUMMARY

Telecommunications companies are rushing to provide 'one-stop shopping' services that let customers receive a single bill for a wide variety of service options and promise to revolutionize the interaction between telecom providers and customers.

Nippondenso to Release Vehicle Information System Products

COMLINE - Automobiles and Transportation • 04/05/95 • 2 pages (270 words) • SUMMARY

Nippondenso Co., Ltd (6902) is to begin business in the field of vehicle information systems.

NTT to Begin New Directory Information System within 1990

COMLINE - Telecommunications • 06/05/90 • 2 pages (180 words) • SUMMARY

Within 1990, NTT Corp. (9432) will make available a new directory information service which can

COMPUSERVE: CompuServe opens the door to online banking

M2 Presswire • 07/03/96 • 4 pages (820 words) • SUMMARY

COLUMBUS, Ohio -- CompuServe, Inc. (NASDAQ:CSRV) today opened the virtual lobby to its online

Billing systems give carriers a strategic edge -- Leading-edge products give service providers better insight into their customers

John T. Mulqueen • *Communications Week* • 01/06/97 • 7 pages (1800 words) • SUMMARY

Wireless carriers are investing billions of dollars to build, buy or outsource billing and customer care systems because they provide clear advantages over competing companies.

How To Get A Better Return On Data ☐
Stuart J. Johnston • *Information Week* • 09/06/96 • 7 pages (1900 words) •
SUMMARY
The hottest information technology trend in the banking industry this year is not online banking but mining.

DOLLARS & SENSE ☐
NetGuide • 07/06/95 • 6 pages (1700 words) • SUMMARY
Students who have the merits but not the money might strike gold at these 10

Scheduling products with bills of materials using an improved Lagrangian relaxation technique ☐
Czerwinski, Christopher S. ; Luh, Peter B. • *IEEE TRANS ROB AUTOM* • 01/01/94 •
2 pages (320 words) • SUMMARY
A bill of materials specifies the sequence in which parts are to be processed and assembled in order to manufacture a derivable product.

E-BANKING: CHECKFREE FIRST TO OFFER ELECTRONIC BILL DELIVERY TO CONSUMERS; 2,000 CONSUMERS WILL BE RECEIVING MONTHLY BILLS VIA THEIR PC IN A MULTI-MARKET TEST ☐
Edge • 10/30/95 • 4 pages (940 words) • SUMMARY
Continuing in its mission to bring convenient, efficient and easy-to-use electronic commerce solutions to homes, businesses and financial institutions, Checkfree Corporation Thursday announced an innovative consumer bill delivery service.

The Mother Lode -- Data Mining Digs Deep For Business Intelligence ☐
Nick Wreden • *Communications Week* • 02/17/97 • 11 pages (3300 words) •
SUMMARY
Marketing Communications Systems Inc. handles 15 million pieces of direct mail each week for

MITI To Propose Bill To Deregulate Petroleum Bus. ☐
COMLINE - Chemicals & Materials • 02/17/95 • 2 pages (280 words) • SUMMARY
Ministry of International Trade and Industry (MITI) will submit a petroleum-industry deregulation bill - after it has been discussed at a Cabinet meeting to be held February 21 - to the Diet within the current ordinary session.

Online Services Don't Always Fill the Bill ☐
Leslie Goff • *NetGuide* • 01/31/96 • 3 pages (810 words) • SUMMARY
As the major online services initiate millions of Americans into the rank and file of cyberspace, they're also putting a new wrinkle in the way those users pay for such communications and media services.

Modify Save Alert   Sort: Rank Newest Oldest Source Subject   Draw: Graph BarChart Print... Simi Doc

DR-LINK: Results (by Rank) for: A ...se financial services or products.

http://www.mnis.net/drlink4F/drlink4.cgi

****

DR-LINK
****

Request: A system for targeted marketing that allows mailers of utility bills, mortgage bills, or telephone services to include advertising for financial instruments or products in their mailings of the bills. The system uses information such as customer, age, demographics, financial information, family status and other information kept in the utility or mortgage companies databases to target specific individuals for advertisements which are then included or actually printed on the bills. Also check for mailings included with or enclosed with credit card bills that advertise financial services or products.

****

FT 01 JUL 94 / Technology: Smart selling to big spenders - Databases will soon be able to tell stores what individual customers like for breakfast, explains Victoria Griffith in a series on electronic retailing
By: Victoria Griffith
The Financial Times
07/01/94 5 pages (1400 words)

Every salesperson would like to see into the minds of customers, to know exactly what they want and when they want it. While telepathy is beyond modern technology, many retail businesses are turning to the next best thing -databases with extensive information about consumers.

In the US, Europe and Asia, companies are developing sophisticated computer-based programs to store customer details, from addresses and telephone numbers to monthly consumption of fax paper and expensive wines.

Clever marketing executives can turn this information to their advantage.

If a New York resident shops regularly at Giorgio Armani on Madison Avenue
and is known to spend time in France on business, Armani might be well advised to tell the consumer about its Paris store.

Information can also help retailers screen out less attractive customers -

Information can also help retailers screen out less attractive customers - ones who only buy deeply discounted items, for example, may not be worth courting.

Most marketing is still highly unselective. Gourmet cooks are unlikely to dine at McDonald's but still see commercials for Big Mac hamburgers on television. A proportion of McDonald's advertising budget, therefore, is spent on people who will probably never enter the fast-food outlet.

Targeted marketing, on the other hand, allows companies to reward loyal customers and avoid wasting money on promotions to unlikely buyers. Because it can cost so much to attract new customers, maintaining a loyal customer base can make a huge financial difference.

'The longer a company keeps a customer, the more money it stands to make,' says Frederick Reichheld of Bain and Co, a Boston-based consulting group.

'This is not only because companies do not need to spend as much money on advertising to recruit new customers. Faithful customers are also important because the longer they have done business with a company the more money they tend to spend.'
The methods that retailers use to build their databases vary. Consumers must be enticed to reveal information about themselves. For catalogue companies, which have addresses for all their customers, the task is easier. LL Bean, a Maine-based sporting and leisure goods mail-order company, has sales histories that go back decades.

Retail stores, such as consumer goods manufacturers, have a harder time tracking purchasers. Asking people to write in for free products is one way to build up a database. US cigarette companies have used this method extensively over the past few years, maintaining comprehensive lists of smokers. The scheme also means that smokers may be the only ones to receive magazines that carry cigarette advertisements - the non-smokers receive the same publications without the advertisements.

Retailers often ask customers to fill out a card so they can be informed of forthcoming sales. In this way, shops can build up a substantial mailing list. But such methods produce limited results, usually nothing more than an address and perhaps a telephone number. Retail tracking is more efficient when done with magnetic stripe cards that automatically register purchases in a computer program.

Staples, the Boston-based office-goods retailer, offers shoppers a free membership card when they make their first purchase at the store. The card entitles shoppers to discounts on selected items and provides valuable information to the chain. Since customers are encouraged to use their card with each purchase, the company can track how much of certain items the customer is buying, at what times of the year and at what prices.

Staples can evaluate a number of company strategies. It can assess the impact on sales of a particular fax paper being displayed prominently in a store. It can also use the database to bring back customers who have defected. If a consumer has purchased large amounts of copy paper each month
for two years and suddenly stops, a company representative can try to find out why and respond. Staples now provides a delivery service after discovering that the lack of one was a main reason for defections.

The widespread use of credit cards means they can be an important source of information. American Express provides a service to retailers that can help target specific customer needs. In the UK, it is about to experiment with a new system that would provide information about products to likely buyers on

the monthly credit card bill.

'If someone buys a lot of food at a department store but has never entered the wine section, the store might offer a free bottle of wine with the next purchase,' says Maureen Bailey, for the group. 'That information would show up on the American Express bill.'
Companies are increasingly exchanging information, maximising information about consumers and cutting the cost of building and maintaining the database. An important cross-fertilisation scheme is being launched later this year in the UK. American Telephone & Telegraph of the US is setting up a new scheme, called Istel, to help retailers build databases and provide incentives to loyal customers. Under the programme, customers will be invited to join the Istel club, entitling them to a magnetic stripe card and potential discounts on various items available in do-it-yourself shops, grocery stores, petrol stations, clothing and toy shops, and other retail groups.

The scheme has a recruitment target of 8m card holders, and AT&T estimates that consumers will be able to save about Pounds 180 a year by using the

that consumers will be able to save about Pounds 180 a year by using the card when they shop at member stores. AT&T will process the information obtained from the card users for the retailers.

'The grocer may like to know who is a high spender within the scheme but is not shopping with them,' says Ruth Kemp, for the group. 'Then they can offer incentives to use their store. Retailers will also know for the first time who their customers are.

'When people move house, for example, retailers often lose valuable customers. With the information on the database it will be possible to track customers. They could tell them where their nearest store now is, offer them incentives to shop there and provide them with a 'welcome to your new home' pack.'
Not everyone is happy with retailers' new love affair with databases. The US media has heavily criticised the 'Big Brother' aspect, which allows companies to record so many details about people's lives.

AT&T says it will proceed with caution. 'All the current data protection laws will be strictly adhered to and the card holder information will remain confidential to each individual retailer,' says Kemp.

'Customers may choose not to be sent any direct marketing. Our research shows that consumers' irritation with direct marketing is with unsolicited mail that is of no interest to them.

'The information held will result in tightly targeted direct marketing, so consumers should receive information that is genuinely of interest to them.

For example, if we see you are buying a lot of garden products, you may well be interested in receiving a spring bulb catalogue.'
Despite concerns over information flow, membership schemes that offer discounts and purchasing incentives seem to be the retailers' best chance of keeping track of customer purchases. 'As part of a scheme or club, people's sense of belonging is established by regular communication,' says Kemp.

'Participants do not see this type of communication as invasive.'

FROM BORING TO BRILLIANT: OVERHAULING TELCO BILLING
STATEMENTS
Telco Business Report
06/05/95 5 pages (1200 words)

With the constant barrage of industry information hitting the public from print, radio and television advertising, standing out from the crowd is a real challenge for telcos. Fortunately, they already have a powerful vehicle to communicate with customers, motivate prompt payment and market additional products and services: their monthly billing statements.

But face it, telcos - those statements are pretty boring. Except for the occasional new product or service announcement inserts - usually hidden behind sheets of detailed monthly charges - every page essentially looks the same.

The problem is "telcos see (everything) as one-size-fits-all," Frank Delfer, president and general manager of El Dorado Hills, Calif.-based International Billing Services (IBS), told Telco Business Report.

IBS, a division of U.S. Computer Service, designs and distributes billing statements for the telecom, cable, banking and insurance industries. The company finds new ways to customize billing for telcos.

"This is a pretty decent marketing channel," Randall Simonetti, spokesman for Rochester Telephone Corp. and Frontier Telephone Group, told TBR. "But it has to be well designed."

Rochester Tel and Frontier have been working with IBS for about five months since they began redesigning their statements in keeping with their new corporate images.

"So far we've been pleased," Simonetti said. "It's the least expensive direct mail marketing tool you can ever have - you have to send bills anyway."

Local telcos have never given much thought to the impact of their billing statements on customers. But all they have to do is take a closer look at how customers use their bills to determine which ones are most likely to subscribe to a new product or service.

For instance, thousands of telco advertising dollars are spent producing billing inserts for new products or services. The inserts are mass-printed and sent to a wide variety of customers along with their phone bills.

Ideally, these inserts should capture customers' attention when they open their bills, prompting them to purchase the product or service right away. The sad truth, however, is that at least half of these inserts wind up in customers' "circular files" (a.k.a. the garbage can) never to be seen again - until the next

"circular files" (a.k.a. the garbage can) never to be seen again - until the next statement arrives.

But don't think telcos haven't acknowledged the need to improve the sales and marketing potential of well-designed billing statements.

Maggie Shea, manager of brand development with Ameritech, told TBR the RBOC has "under-leveraged billing statements in the past, but we have a number of plans to improve."

"We're totally revamping our customer information distribution system, including billing," said Cynthia Frisina, BellSouth's director of advertising and marketing communications in its consumer services division.

Simonetti's advice to telcos rethinking the design of their billing statements is to "engineer it backwards from what customers want. You'll create a much more applicable, acceptable bill."

For instance, borrow a simple technique from the retail industry: use the customer's name as much as possible in the statement. This can establish a personal relationship.

A billing statement could say, for example, "Thank you, John Doe, for your patronage. Telco X's network voice mail service saved you $xx this month. Because you are a valued customer, John Doe, Telco X would like to offer you caller ID for only $xx. If you are interested, just check the box to receive your new service when we receive this month's service payment. The subscription fee and monthly charge for the new service will appear on your next statement."

Another trick to holding the customer's attention with the statement is to create and coordinate a total package, explained Delfer.

"It has to be creative and eye-catching," he said. "If customers are engaged by the outside of the envelope, they'll be even more interested to see what's inside."

He suggested using messages or teasers on the outside of the statement, particularly on the back flap of the envelope where customers lick it closed. Reaching customers in this fashion involves what Delfer calls "eye-tongue coordination."

coordination."

Rochester Tel and Frontier already are doing this. Eye-catching snippets of information, such as "Never miss a call again," or "Too busy to dial?" greet customers on the statements' outside envelopes.

"Even if you only read that and not (the inside) copy, you'll know what it's about," Simonetti said.

But perhaps the best idea for telcos is to look at what their competitors have done well. Cable and long-distance companies have a clear (if not unfair) advantage over local telcos with their billing.

For the most part, they are deregulated so they don't have to put as much detail in their billing statements. But every state public utility commission requires local telcos to detail customers' monthly charges.

Furthermore, cable companies, whose forte is entertainment, and long-distance carriers, which are more competitive by nature, have greater incentive to reflect creativity in their statements.

Consider also that different customers need different statements.

It's hard to reach and receive feedback from residential customers through billing statements, because they just want to pay their bills and have a phone that works.

But, as Doug Idleman, small business division spokesman for AT&T, told TBR, "From the business side, there's a great deal of marketing and sales intelligence derived from a bill."

And interestingly enough, it's information telcos can pass along to these customers that give them additional market information.

"A telephone bill can help you determine who is using your business so you can do some demographic analysis and make some telemarketing and staffing decisions that relate to that," Idleman said.

In turn, telcos can offer them additional products, services and solutions that correspond to those changing needs.

But look out, local telcos. According to Idleman, "AT&T has done a fairly aggressive job of taking back business customer billing from local telcos so they can offer the same solutions."

they can offer the same solutions."

Finally, as telcos, cable operators and long-distance carriers converge into new lines
of business, statement consolidation

is one billing design trend likely to appear. The sample statementillustrates the effectiveness
of a well-organized, efficiently designed consolidated bill.

However telcos decide to redesign them, one thing is certain: "Billing statements," Delfer said, "don't have to be boring."

Copyright 1995 Telecom Publishing Group

Copyright 1995 Information Access Co., All Rights Reserved.

Additional Information:
Subscription: $617 per year as of 1/92. Published 24 times per year.Contact
Telecom Publishing Group, 1101 King Street, Suite 444, Alexandria, VA
22313-2055. Phone (703) 683-4100. FAX (703) 739-6490.
Industry Descriptor: Telecommunications (TL)
Publisher Name: Telecom Publishing Group
ISSN: 8755-3511
Word Count: 1012
Copyright 1995 Telecom Publishing Group
Copyright 1995 Information Access Co., All Rights Reserved.

The Mother Lode -- Data Mining Digs Deep For Business Intelligence
By: Nick Wreden
Communications Week
02/17/97 11 pages (3300 words)

Marketing Communications Systems Inc. handles 15 million pieces of direct mail each week for major corporations, such as American Express Co. Leon Roomberg, director of networking and database development at MCS, knows the dark side of direct mail better than anyone else.

"It's a rule of thumb that a 2 to 3 percent response rate on direct mail can be a profitable success. Yet that means that up to 97 percent of direct mail fails," says Roomberg. "It's reasonable to expect executives who care deeply about return-on-investment to look hard at that figure."

To increase response rates and profitability, MCS is investing heavily in data warehousing and data mining, using such tools as the Oracle2000 tool set; PC SAS and Server SAS from SAS Institute Inc., Cary, N.C.; TopDog from Decision Software Inc., Silver Springs, Md.; and ProfitZone by Database America Inc., Montvale, N.J. By looking at data more intelligently, Ivyland, Pa.-based MCS hopes to increase response rates and build better marketing campaigns more quickly. Already, MCS has helped its customers slash the amount of time to create campaigns from two to 12 weeks to as little as 24 hours.

MCS joins American Express, New York; The Chicago Tribune; San Diego Gas & Electric; and other large firms seeking to use corporate and other data gems as an information resource that provides new insights about products, prospects, customers and operations.

Data Nuggets

Some are building data warehouses-enterprisewide, multiterabyte collections of data-while others are opting for smaller-scale data marts that fulfill the needs of a department or function. The companies then use various data mining tools and techniques to comb through the databases to confirm hypotheses, uncover illuminating correlations, highlight exceptions or monitor operations more closely.

Generally, companies are using data mining to produce a competitive edge in four areas. First, MCS and others are looking to improve both customer acquisition and customer retention. Anything that provides a higher return on marketing expenditures or keeps customers from defecting can pay for itself quickly. Other companies, primarily in the health care or insurance industries, are using data mining to reduce fraud. Firms also are employing data mining as a sharp-edged weapon to outline inefficiencies or revamp operations. And finally, data mining is a tool that can be used to map the unexplored jungle of the Internet.

Achieving these goals can produce significant paybacks. According to a 1996

survey by International Data Corp. of 62 organizations with successful data warehouses, the average return on investment (ROI) was about 400 percent, with one organization reporting an eye-popping 16,000 percent. The average payback period was 2.3 years on costs averaging $2.2 million, reports the Framingham, Mass.-based research organization.

"By uncovering unknown correlations or unexpected relationships, companies can significantly increase the chances of success for marketing campaigns, decrease time-to-market and target areas that sap productivity or profits," says Bill Hopkins, research director at Gartner Group Inc., a Stamford, Conn.-based research company.

The increased allure of data mining is partly emotional, partly intellectual and partly technological. There's something almost religiously appealing about a proprietary corporate resource that holds the answers to all business questions-no more gut decisions, no more consultants with buzzword-driven divining rods. Data mining also promises to use today's overwhelming deluge of information selectively.

"Data warehousing is not about collecting data from multiple sources for corporate purposes; IT departments have been doing that for the past 30 years," notes Alan Paller, director of education and research at the Data Warehousing Institute (DWI), Rockville, Md., a 2,900-member worldwide organization that helps managers solve data warehousing issues. "What makes data warehousing special is the intersection of low-cost storage, very fast processors and parallel processing techniques that makes it possible to allow data mining to ask new questions about much more data than ever before."

As a result, interest in data mining is expanding rapidly. Gartner Group estimates that by the end of 1997, approximately 80 percent of the Global 2000-the world's largest 2,000 companies-will have or will be planning a data warehouse strategy that likely will incorporate data mining. But for all those planning to ride the data mining bandwagon to corporate success, be forewarned: There is ample opportunity for heroic failure. A Gartner Group survey tracks an ROI that's two to 70 times as great as the original investment, but it also finds that as many as 60 percent of firms fail to meet their original objectives with data warehouses.

The reasons for less-than-optimum success vary. One, according to the Boston-based research organization The Yankee Group, is selecting and integrating tools from "a highly fragmented market with 20 to 30 vendors in every product and service category," ranging from operating systems,

databases, middleware, relational and multidimensional database tools, metadata (data about data) managers and data cleansing tools. Key players in these areas include Arbor Software Corp., Encore Computer Corp., Informatica Corp., Information Builders Inc., Microsoft, Oracle, Pilot Software Inc., Silicon Graphics Inc., Thinking Machines and others.

Another reason, more important in the long run, is that it's not enough to build a data warehouse or data mart and buy the best data mining tools. Executives and analysts have to ask smart questions whose answers lay the foundations for specific actions.

What to Ask

"At conferences I meet terribly frustrated managers with data warehouses that aren't being used. Executives start off by asking, 'Tell me where to spend the money to make a million dollars.' That doesn't work, and no one takes the time to learn how to ask questions whose answers would truly make a difference in the business," says DWI's Paller.

But when the right questions are asked, the results can be astounding. Capital One Financial Corp., one of the nation's largest credit card issuers, uses data mining to help sell the most appropriate of its 3,000 financial products-including secured, joint, cobranded and college-student cards-to 150 million potential prospects in its 2-terabyte-plus Oracle7-based data warehouse. When Capital One markets a new product, analysts create targeted customer lists.

Capital One's data mining techniques, which use actuarial and behavioral principles, not only track the success of various mailings but also the ongoing profitability and other characteristics of the 8.6 million customers who have signed up. These capabilities helped the company pioneer a "balance transfer" strategy-offering prospects a temporarily low interest rate to move balances from competing cards-that is now a common industry feature. Data mining and other information-based strategies not only helped the Falls Church, Va.-based firm expand from $1 billion to $12.8 billion in managed loans from 1988 to 1996 but also garner the 1996 Excellence in Technology Award from Gartner Group.

"We attribute much of our growth to our ability to target the right types of

people to bring on as customers. We've also had a very low delinquency rate on our existing accounts. This is a great testimony as to how well data mining has worked," says David Buch, Capital One's IT director for data warehousing.

A strategic benefit of Capital One's data mining capabilities is fraud detection. In 1995, for instance, Visa and MasterCard's U.S. losses from fraud totaled $702 million. Though Capital One is reluctant to discuss its fraud detection efforts specifically, it noted that its losses from fraud declined more than 50 percent last year, in part due to its proprietary data mining tools and San Diego-based HNC Software Inc.'s Falcon, a neural network-based credit card fraud-detection system.

Other financial companies also are using data mining to improve profitability and reduce risk. Home Savings of America FSB, Irwindale, Calif., the nation's largest savings and loan, analyzes mortgage delinquencies, foreclosures, sales activity and even geological trends over five years to drive risk pricing. Home Savings depends on the Troy, N.Y.-based MapInfo Corp.'s SpatialWare, which runs on a Unisys dual-processor Pentium Pro and accesses Oracle for Workgroups, to store, manage and query such spatial data as addresses and housing stock. Another key element is GeoStan Library, from Qualitative Marketing Software Inc., Clearwater, Fla., which helps determine the longitude and latitude of any address.

"We want to analyze the trends relevant to any given location, such as purchases and sales within a five-mile radius, number of outstanding loans in a particular area and the performance of individual agents. We're also looking closely at a lot of environmental questions, such as flood risk and earthquake potential," says Andy Barker, programmer at Home Savings.

Trend Analysis

According to Barker, the benefits include "getting answers to questions that we were never able to ask before." Home Savings also is able to store all relevant data in a central repository, thus eliminating redundant data purchases.

Home Savings' data mart costs from $200,000 to $300,000, but as Barker points out, "if the data mart keeps us from making one bad loan, it has more than paid for itself."

Other financial institutions are looking at the power of data mining to reduce fraud. KPMG Peat Marwick LLP, based in Philadelphia, is using Darwin, a data mining tool from Thinking Machines Corp., Bedford, Mass., with an Oracle database running on a Sun Ultra II and a Cognos tool set for information delivery.

With these technologies, KPMG, a full-service consulting firm that deals with new and emerging technologies, markets its data mining capabilities primarily to mortgage banking firms, helping them offer risk-based pricing and reduce fraud. "We look at all the variables-loan values, credit reports, area demographics and so on-to help them score a mortgage more accurately," says Thayer Jack, senior manager at KPMG. "The data mining analysis gives them the objective capability to decide to grant a mortgage with higher interest rates, where traditional mortgage scoring might have led them to turn down the application completely. The analysis increases the throughput and reduces the amount of time to make a mortgage decision and, in the long term, can increase profitability."

The data mining analysis also can reduce the incidence of fraud. "The system looks for anomalies that may indicate fraud," Jack continues. "For example, it flags the bank if an applicant reports they make $225,000 a year in an area where the median income is $25,000, or if they report they have lived in an area for five years that was only developed two years ago."

Data mining can be used to achieve internal as well as external goals. American Express is using a data warehouse and data mining technique to reduce unnecessary spending, leverage its global purchasing power and standardize on equipment and services in its offices worldwide.

About a year ago, American Express began merging its worldwide purchasing system, corporate purchasing card and corporate card databases into a single Microsoft SQL Server database. By using dual-processor Compaq servers and KnowledgeSeeker from Angoss Software, Toronto, American Express is able to find the exceptions and patterns that arm its cost-cutting crusade.

"Most companies spend about 40 to 50 percent of gross expenditures on maintenance and repair operations, which can range from payments to temporary agencies and contract programmers to paper and pencils," says Joseph Yacura, senior vice president of worldwide procurement at the New York financial services firm. Yet these expenditures are not managed to the same degree as expenses affecting the core business, mainly because it's hard to capture and analyze the data, Yacura says.

"But our data mining tools open a whole area of global expenditures to a greater level of review and management control than ever before," he says.

The system allows American Express to pinpoint, for example, employees who purchase computers or other capital equipment with corporate credit cards meant for travel and entertainment. It eliminates what American Express calls "contract bypass"-purchases from vendors other than those the company has negotiated with for discounts in return for guaranteed purchase levels.
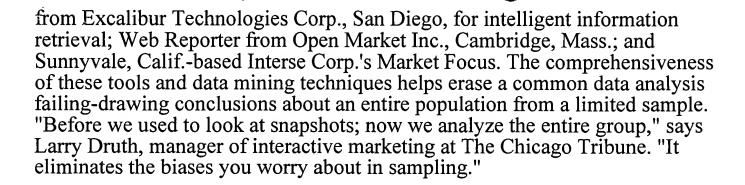
American Express uses Quest, from New York-based Information Builders, to score the best suppliers according to 24 criteria, allowing managers to perform best-fit analyses and trade-off analyses that balance competing requirements. By monitoring purchases and vendor performance, American Express can address quality, reliability and other issues with IBM; Eastman Kodak Co., Rochester, N.Y.; and other worldwide vendors.

"Many of the paybacks from data mining, even at this early stage, will result from our increased buying power, fewer uncontrolled expenses and improved supplier responsiveness," says Yacura.

The Internet, characterized by vast amounts of data and varying opinions about its viability as an income-producing medium, is an emerging arena in which data mining can be used to test assumptions and track responses. For example, the Chicago Tribune Co. publishes a variety of services on the Web and on America Online Inc., Vienna, Va., many of which are focused on classified advertising.

"We're using data mining to analyze customer behavior as they move through our various Web sites to make better decisions concerning service and functionality, and to get an idea of our overall position under multiple brand names," says Owen Youngman, director of interactive media at The Chicago Tribune, whose staff analyzes everything from the number of links to its pages to whether Netscape Communications' or Microsoft's browsers are used for access. Data mining is even affecting staff scheduling at the newspaper. The Chicago Tribune wanted to determine whether to dedicate its sports staff on Saturdays to writing up the previous night's high school football games or to covering the day's college games. By analyzing traffic across its sites, the paper determined that information about high school games was accessed most frequently on Mondays, primarily from corporate sites and not from homes. So the sports staff now spends Saturdays on college-not high school-games.

For its data mining analyses, The Chicago Tribune is using RetrievalWare

from Excalibur Technologies Corp., San Diego, for intelligent information retrieval; Web Reporter from Open Market Inc., Cambridge, Mass.; and Sunnyvale, Calif.-based Interse Corp.'s Market Focus. The comprehensiveness of these tools and data mining techniques helps erase a common data analysis failing-drawing conclusions about an entire population from a limited sample. "Before we used to look at snapshots; now we analyze the entire group," says Larry Druth, manager of interactive marketing at The Chicago Tribune. "It eliminates the biases you worry about in sampling."
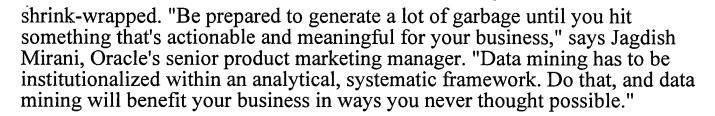
Purgatory Before Nirvana

Data mining can provide substantial marketing, loss-prevention and operational benefits. But to reach this nirvana of relatively easy answers to tough questions, managers must first slog through an uncharted purgatory of data definition, data cleansing and data integration; weave together a complex assortment whose next-generation capabilities may have little relevance to current realities; and enable preoccupied users to use the ultimate information resource effectively.

"The first step is to define the problems that need to be solved and for what users. Get users, management information systems and executive management involved. Once the requirements are agreed upon, then start looking for resources to implement the system," advises Paul Albright, vice president of marketing at Informatica Corp., Menlo Park, Calif., which specializes in data warehousing development and implementation tools.

But agreeing on requirements and, more important, data definitions, is much easier said than done, says DWI's Paller. Definitions are just the beginning, however. The data must be "scrubbed" clean to rationalize two or more different data structures; ensure consistent use of data (i.e., GA vs. Ga. vs. Georgia); eliminate repetitive information, such as multiple account numbers for a single customer; and validate the information.

Wayne Eckerson, a senior consultant with Patricia Seybold Group, Boston, suggests that data mining on the cheap won't deliver much value. "The greater the return you want, the greater the investment required," he says. "You'll see $1,000 packages, but their insights may be so self-evident that users may not even bother."

Despite the corporate benefits and customer insights that data mining can bring, it's useful to remember that truth and knowledge can't always be

shrink-wrapped. "Be prepared to generate a lot of garbage until you hit something that's actionable and meaningful for your business," says Jagdish Mirani, Oracle's senior product marketing manager. "Data mining has to be institutionalized within an analytical, systematic framework. Do that, and data mining will benefit your business in ways you never thought possible."

Sidebar -- Tech Tips

Based on consultations with industry experts and data warehousing managers, the staff of The Data Warehousing Institute has compiled 10 suggestions to prevent data warehouses and data mining efforts from capsizing. Here they are:

-- Get the right sponsorship chain. According to the DWI, the right chain includes a high-level executive sponsor and a project "driver" who keeps the project moving in the right direction.

-- Set realistic expectations. Data warehousing projects have two phases: the selling phase where executives are persuaded that you can supply all the answers to their questions; and the struggle to meet the expectations raised in phase one. Remember that data warehouses and data mining cannot give users all the information they need.

-- Keep your rhetoric in line, politically. Claiming "this will help managers make better decisions" will make a self-respecting manager think: "So this person thinks I have not been making good decisions." From that point on, that manager is very, very hard to please.

-- Be choosy about what information you load. Extraneous data buries important information. Faced with the need to slog through unwanted information, users grow frustrated quickly.

-- Realize that data warehousing database design is fundamentally different from transactional database design. In transaction processing, a programmer develops a query that will be used tens of thousands of times. In data warehousing, users develop a query that may only be used once.

-- Choose a data warehousing manager who is user-oriented. Data warehousing is a service business-not a storage business-and making clients angry is a quick way to destroy a service business.

-- Include both traditional data and non-structured data like multimedia. Extend the focus to include external information such as audio and video.

-- Deliver data with clearly understood definitions. The Achilles heel of data warehousing is the need to gain consensus on data definitions-failing to solve this problem will cause users to lack confidence in the information.

-- Plan for growth. Your database, number of user queries and network traffic will inevitably grow.

-- Realize that data warehouses need maintenance. Data warehousing is a journey, not a destination.

Additional Information:
Section: Closeup -- Data Mining